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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/353,383	07/15/1999	TOSHIHIRO SHIMA	Q55113	3442

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EXAMINER

POON, KING Y

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/353,383

Applicant(s)

SHIMA, TOSHIHIRO

Examiner

King Y. Poon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004 and 20 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/10/2003 nd 9/21/1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/20/2004 and 4/20/2004 has been entered.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 3-6, 8-10, 24-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 1, 6, 24, 28, 30: The limitations of "wherein said host computer generates said job data of said printing job when the job request is received from said printer" is subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Regarding claims 3-5: Claims 3-5 are rejected under 35 U.S.C. 112, first paragraph because they depend on rejected claim 1.

Regarding claims 8-10: Claims 8-10 are rejected under 35 U.S.C. 112, first paragraph because they depend on rejected claim 6.

Regarding claims 25-27, 29, 31-36: Claims 25-27, 29, 31-36 are rejected under 35 U.S.C. 112, first paragraph because they depend on rejected claims 24, 28, 30.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 3-6, 8-10, 24-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "sends said job data" in line 6". There is insufficient antecedent basis for this limitation in the claim.

It is unclear "said job data" is referring to the job data that is generated, but before being stored; or the print data that has been stored.

Regarding claims 3-5: Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, because they depend on rejected claim 1.

Claim 6 recites the limitation "sends said job data" in line 7". There is insufficient antecedent basis for this limitation in the claim.

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It is unclear "said job data" is referring to the job data that is generated, but before being stored; or the print data that has been stored.

Regarding claims 8-10: Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, because they depend on rejected claim 6.

Regarding claims 24, 28, 30: Claims 24, 28, 30 are claiming storing generated print data and sending the stored print data in response to a job request. Based on that, it appears the print data is generated and stored before the job request. Therefore, the newly added limitations of "the host computer generates the job data when the job request is received" contradicts with other claimed limitations.

Regarding claims 25-27, 29, 31-36: Claims 25-27, 29, 31-36 are rejected under 35 U.S.C. 112, first paragraph because they depend on rejected claims 24, 28, 30.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-13, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase (US 6,184,996) in view of Zimmerman et al (US 5,490,237).

Regarding claim 11: Gase teaches a printer (printer 14, column 3, line 12) comprising: a job request section (the software code of the browser program that

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request print job, column 3, lines 25-30) for demanding job data (text of print job, column 3, lines 25-30) of a print job from a host computer (client processor, column 3, lines 27, that the print job is located, column 3, lines 5-8) having the job data; and a printing section (the software code of the program of the printer that controls the printer to received the transmitted text of a print job, column 3, lines 25-30, and the software code that controls the printer to print the text) for receiving and printing the job data sent from the host computer in response (response, column 3, line 29) to a request (request, column 3, line 27) from the job request section.

Note: Column 5, lines 1-10, Gase teaches the printer is controlled by software procedures. It is inherent that different procedures of the printer are controlled by different software code.

Gase does not teach the details within the printer - a print engine, a receive buffer memory, and wherein the job request section sends said job request to the host computer according to a condition of the engine and the receive buffer memory.

Zimmerman, in the same area using a printer for printing, shows the detail of a printer having a print engine, (column 5, line 29) a receive buffer memory, (column 5, lines 35-36) and wherein the host computer sends the print job to the printer according to a condition of said print engine (the print engine must be ready to print after 40 % of the print data is being stored) and said receive buffer memory (the memory must have space for the transmitted print job).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer to include: a print

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engine, a receive buffer memory, and wherein the job request section sends said job request to the host computer according to a condition of the engine and the receive buffer memory.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer by the teaching of Zimmerman because of the following reasons: (a) it would have provide a hardware device/print engine to carry out the printing; (b) it would prevent the data from being lost by using a buffer; and (c) it would have prevented the print engine from stopping during printing which will degrade the print quality.

Regarding claim 12: Gase teaches wherein the job request section receives job location data (received URL, column 3, lines 15-20) showing a location of the job data (column 3, lines 18-20) from a print server, (the computer that generates the URL message other than the computer where the print job resided, column 3, lines 18-21, column 3, lines 5-9; each client processor is a print server, column 3, lines 1-4, that serves the printer's request, column 1, lines 41-45, column 3, lines 25-30) and the job request section sends a job request (request, column 3, line 27) to the host computer (client processor, column 3, lines 27, that the print job is located, column 3, lines 5-8) which the job location data shows (column 3, lines 15-30).

Regarding claim 13: Gase teaches the printer further comprising a print server (job queue 28, column 3, lines 24) for receiving job location data (URL, column 3, line 30-35) showing a location (located, column 3, line 28) of the job data (text of print job, column 3, line 27, column 3, line 29) from the host computer (client processor, column

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3, lines 27, that the print job is located, column 3, lines 5-8) and temporarily storing it, (since the print job is stored in the queue as URLs, column 3, lines 30-35, and the print job/URL in the queue would be canceled, column 4, lines 37-40, the storing of the URLs are temporarily) wherein the job request section (the software code of the browser program that request print job, column 3, lines 25-30) sends the job request (column 3, lines 25-30) to the host computer (client processor, column 3, lines 27, that the print job is located, column 3, lines 5-8) which the job location data (URL, column 3, lines 24-26) stored in the print server (job queue 28, column 3, lines 24) shows.

Regarding claim 16: Gase teaches a method of operating a printer, (printer 14, column 3, line 12) comprising steps of demanding job data (sending job request, column 3, lines 25-30) of a print job from a host computer (client processor that sends the text of a print job, column 3, lines 25-30) having the job data (text of a print job, column 3, lines 29-30); and receiving and printing the job data (column 3, lines 28-30) sent from the host computer (client, column 3, line 28) in response to a job request (request, column 3, line 27) of the demanding step.

Gase does not teach the details within the printer - a print engine, a receive buffer memory, and wherein the job request section sends said job request to the host computer according to a condition of the engine and the receive buffer memory.

Zimmerman, in the same area using a printer for printing, shows the detail of a printer having a print engine, (column 5, line 29) a receive buffer memory, (column 5, lines 35-36) and wherein the host computer sends the print job to the printer according to a condition of said print engine (the print engine must be ready to print after 40 % of

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the print data is being stored) and said receive buffer memory (the memory must have space for the transmitted print job).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer to include: a print engine, a receive buffer memory, and wherein the job request section sends said job request to the host computer according to a condition of the engine and the receive buffer memory.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer by the teaching of Zimmerman because of the following reasons: (a) it would have provide a hardware device/print engine to carry out the printing; (b) it would prevent the data from being lost by using a buffer; and (c) it would have prevented the print engine from stopping during printing which will degrade the print quality.

Regarding claim 17: Gase teaches a step of receiving job location data (URL, column 3, line 20) lines showing a location of the job data (column 3, lines 27-28) from a print server (the computer that generates the URL message other than the computer where the print job resided, column 3, lines 18-21, column 3, lines 5-9; each client processor is a print server, column 3, lines 1-4, that serves the printer's request, column 1, lines 41-45, column 3, lines 25-30), wherein in the step of demanding, the job request (request, column 3, lines 26-27) is sent to the host computer (client processor, column 3, lines 28-30) which the job location data shows. (Column 3, lines 25-30)

Regarding claim 18: Gase teaches a step of receiving job location data (received URL, column 3, lines 17) showing a location of the job data (column 3, lines 25-30) from the host computer (client processor, column 3, line 27) and temporarily storing it, (since the print job is stored in the queue as URLs, column 3, lines 30-35, and the print job/URL in the queue would be canceled, column 4, lines 37-40, the storing of the URLs is temporarily) wherein, in the step of demanding, the job request is sent to the host computer which the stored job location data shows (column 3, lines 25-30).

3. Claims 2, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase in view of Debry (US 6,385,728).

Regarding claim 2: Gase teaches a printing system (fig. 1) comprising: a host computer (client processor, column 3, lines 26-28) for generating job data (text/job data in a response, column 3, lines 28-29, which is generated by the client processor; also see column 1, lines 40-47) of a print job (print job, column 3, line 29); and a printer (printer 14, column 3, line 30) for receiving (column 5, lines 24-25) and printing (column 3, line 30) the job data from the host computer, (client processor, column 3, lines 26-28) wherein the printer (printer 14, column 3, lines 26-27) sends a job request (column 3, lines 26-27) to the host computer, and the host computer (client processor, column 3, lines 26-28) sends the job data (text, column 3, line 29) to the printer (printer 14, column 3, line 30) in response to the job request sent from the printer. (Column 3, lines 28-30)

Gase teaches the printing system, further comprising a print server (the other client processor (not the host computer) that send the URL of a print job located at the host computer that has the print job, column 3, lines 5-10, each client processor is also a print server, column 3, lines 1-4, that serves the printer's request, column 1, lines 41-45, column 3, lines 25-30), the server sends job location data (URL, column 3, lines 15-

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21) to the printer, (printer 14, column 3, line 12) and the printer sends the job request (request, column 3, lines 27-28) to the host computer (client processor that the print job is residing) which the job location data shows. (Column 3, lines 25-30)

Gase does not teach wherein the host computer sends job location data showing a location of the job data to the printer server and the print server temporarily stores the job location data.

Debry, in the same area of sending a print request from a printer to a host computer to request a document to be printed by the printer, (column 11, lines 63-67, column 11, lines 1-5, fig. 5) teaches the host computer (file source, column 5, lines 20-25, document source, column 7, lines 16) sends job location data (column 7, lines 20-25, column 10, line 65) showing a location of the job data to the user's computer, (Column 6, lines 60-62), and the user's computer temporarily stores the job location data (The print job location information is located in the will call certificate, column 7, lines 15-25, and the will call certificate is being send with a job request, column 8, lines 65-67. Therefore, the will call certificate/print job location information is temporarily being stored in the user's computer from the time the user's computer received the will call certificate to the time the certificate being sent) before sending the job location data to a print server.

Since the computer used by a user would be used as a print server in Debry, column 6, lines 65-67, column 7, lines 1-2, and the client processor in Gase is a print server, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printing system to include: the host computer sends job location data (URL) showing a location of the job data to the printer server (the computer that sends URL to a printer to request a print job from the host), and the print server temporarily stores the job location data.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printing system by the teaching of Debry because of the following reasons: (a) the user, column 3, lines 5-9, Gase, in one computer that may wish to have a print job that is presented in another computer submitted to the printer, would not have to walk to the another computer to check the URL of the print job or remembering the URL of the print job if Gase's computer system is being modified to have the host computer sends job location data (URL) showing a location of the job data to the printer server (the computer that sends URL to a printer to request a print job from the host); (b) it would have solved the problem created when a user would like to print a document in a remote location but the user's computer system is not secure, is having too much network traffic, or may not have storage space for receiving the print job, as taught by Debry at column 3, lines 44-65; and (c) temporarily storing the job location data would prevent the server from losing the job location data.

Regarding claim 7: Gase teaches a method of sending job data (text, column 3, line 29) of a print job (column 3, line 29) to a printer (printer 14, column 3, line 30), comprising steps of: storing (application has a print job ready for submission to printer, column 3, lines 5-6, i.e., print job is already created and being held in the client processor before sending to the printer. The process that is preventing the host from losing the print job before it is being sent to the printer is storing) the job data (print job, column 3, line 5, print job consist of text data, column 3, line 29) in a host computer; sending a job request (request, column 3, line 25-30) from the printer (printer 14, column 3, lines 12) to the host computer; and sending the job data (print job, column 3, line 5, print job consist of text data, column 3, line 29) from the host computer to the printer in response to the job request. (Column 3, lines 24-30)

Gase also teaches: a print server (the other client processor that send the URL of a print job located at the host computer that has the print job, column 3, lines 5-10, each client processor is also a print server, column 3, lines 1-4, that serves the printer's request, column 1, lines 41-45, column 3, lines 25-30), the server sends job location data (URL, column 3, lines 15- 21) to the printer, (printer 14, column 3, line 12) and wherein, in the step of sending job request, the printer sends the job request (request, column 3, lines 27-28) to the host computer (client processor that the print job is residing) which the job location data shows. (Column 3, lines 25-30)

Gase does not teach wherein the host computer sends job location data showing a location of the job data to the printer server and the print server temporarily stores the job location data.

Debry, in the same area of sending a print request from a printer to a host computer to request a document to be printed by the printer, (column 11, lines 63-67, column 11, lines 1-5, fig. 5) teaches the host computer (file source, column 5, lines 20-25, document source, column 7, lines 16) sends job location data (column 7, lines 20-25, column 10, line 65) showing a location of the job data to the user's computer, (Column 6, lines 60-62), and the user's computer temporarily stores the job location data (The print job location information is located in the will call certificate, column 7, lines 15-25, and the will call certificate is being send with a job request, column 8, lines 65-67. Therefore, the will call certificate/print job location information is temporarily being stored in the user's computer from the time the user's computer received the will call certificate to the time the certificate being sent) before sending the job location data to a print server.

Since the computer used by a user would be used as a print server in Debry, column 6, lines 65-67, column 7, lines 1-2, and the client processor in Gase is a print

server, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printing system to include: the host computer sends job location data (URL) showing a location of the job data to the printer server (the computer that sends URL to a printer to request a print job from the host), and temporarily storing the job location data in the print server.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printing system by the teaching of Debry because of the following reasons: (a) the user, column 3, lines 5-9, Gase, in one computer that may wish to have a print job that is presented in another computer submitted to the printer, would not have to walk to the another computer to check the URL of the print job or remembering the URL of the print job if Gase's computer system is being modified to have the host computer sends job location data (URL) showing a location of the job data to the printer server (the computer that sends URL to a printer to request a print job from the host); (b) it would have solved the problem created when a user would like to print a document in a remote location but the user's computer system is not secure, is having too much network traffic, or may not have storage space for receiving the print job, as taught by Debry at column 3, lines 44-65; and (c) temporarily storing the job location data would prevent the server from losing the job location data.

4. Claims 14, 15, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase in view of Zimmerman as applied to claims 11, 16 above and further in view of Pipeline Corporation (column 1, lines 48-60, Gase).

Regarding claim 14: Gase does not teach wherein the job request section can specify a desired part of the job data for the host computer when the job request section sends the job request, and the printing section receives only the desired part of job data

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sent from the host computer in response to a request from the job request section and prints it.

However, column 1, lines 47-60, Gase teaches that pipeline corporation disclosed a method that a print job (print job of a document, column 1, line 59) is divided into units of print pages (column 1, lines 58) and each print pages (part of a print job) is separately accessed by the printer by requesting the part of the print job data/page using the location information (URL) for the particular part of the print job data/page, and the host sends only the specified part of the print job data/page to the printer (column 1, lines 48-60). A user, from the user's computer, using the home page of a printer would inform the printer of a location of each part (URLs of desired print pages) constituting the job data.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer to include: the job request section can specify a desired part of the job data for the host computer when the job request section sends the job request, and the printing section receives only the desired part of job data sent from the host computer in response to a request from the job request section and prints it.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer because of the following reason: (a) it would have allowed users to access the page of a document that the user is interested in printing and thereby, reduces the data to be downloaded to the printer, and speed up the printing time; and (b) since Gase already knows about the method of using URLs to represent individual print pages of a print job to be requested and printed by the printer, it would have been obvious for Gase to use URLs to represent individual print pages of a print job to be requested and printed by the printer, when Gase only

interest in printing a page within a multi-page documents-especially the multi-page document contains hundreds of pages.

Regarding claim 15: Gase does not teach the printer further comprising means which a location of each part constituting the job data is informed from the host computer, wherein the job request section can specify a desired part of the job data for the host computer based upon the informed location of each part when the job request section sends the job request, and the printing section receives only the desired part of the job data sent from the host computer in response to a request from the job request section and prints it.

However, column 1, lines 47-60, Gase teaches that pipeline corporation disclosed a method that a print job (print job of a document, column 1, line 59) is divided into units of print pages (column 1, lines 58) and each print pages (part of a print job) is separately accessed by the printer by requesting the part of the print job data/page using the location information (URL) for the particular part of the print job data/page, and the host sends only the specified part of the print job data/page to the printer (column 1, lines 48-60). A user, from the user's computer, using the home page of a printer would inform the printer of a location of each part (URLs of desired print pages) constituting the job data.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer to include: means/software code such that the printer would allow the location of each part constituting the job data to be informed from the host computer; the job request section can specify a desired part of the job data for the host computer based upon the informed location of each part when the job request section sends the job request, and

the printing section receives only the desired part of the job data sent from the host computer in response to a request from the job request section and prints it.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer because of the following reason: (a) it would have allowed users to access the page of a document that the user is interested in printing and thereby, reduces the data to be downloaded to the printer, and speed up the printing time; and (b) since Gase already knows about the method of using URLs to represent individual print pages of a print job to be requested and printed by the printer, it would have been obvious for Gase to use URLs to represent individual print pages of a print job to be requested and printed by the printer, when Gase only interest in printing a page within a multi-page documents-especially the multi-page document contains hundreds of pages.

Regarding claim 19: Gase does not teach wherein, in the step of demanding, a desired part of the job data can be specified for the host computer, and in the step of printing, only the desired part of the job data sent from the host computer in response to the job request is received and printed.

However, column 1, lines 47-60, Gase teaches that pipeline corporation disclosed a method that a print job (print job of a document, column 1, line 59) is divided into units of print pages (column 1, lines 58) and each print pages (part of a print job) is separately accessed by the printer by requesting the part of the print job data/page using the location information (URL) for the particular part of the print job data/page, and the host sends only the specified part of the print job data/page to the printer (column 1, lines 48-60). A user, from the user's computer, using the home page of a printer would inform the printer of a location of each part (URLs of desired print pages) constituting the job data.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer to include: in the step of demanding, a desired part of the job data can be specified for the host computer, and in the step of printing, only the desired part of the job data sent from the host computer in response to the job request is received and printed.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer because of the following reason: (a) it would have allowed users to access the page of a document that the user is interested in printing and thereby, reduces the data to be downloaded to the printer, and speed up the printing time; and (b) since Gase already knows about the method of using URLs to represent individual print pages of a print job to be requested and printed by the printer, it would have been obvious for Gase to use URLs to represent individual print pages of a print job to be requested and printed by the printer, when Gase only interest in printing a page within a multi-page documents-especially the multi-page document contains hundreds of pages.

Regarding claim 20: Gase does not teach a step of being informed of a location of each part constituting the job data from the host computer, wherein, in the step of demanding, a desired part of the job data can be specified for the host computer based upon the informed location of each part, and in the step of printing, only the desired part of the job data sent from the host computer in response to the job request is received and printed.

However, column 1, lines 47-60, Gase teaches that pipeline corporation disclosed a method that a print job (print job of a document, column 1, line 59) is divided into units of print pages (column 1, lines 58) and each print pages (part of a print job) is separately accessed by the printer by requesting the part of the print job data/page

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using the location information (URL) for the particular part of the print job data/page, and the host sends only the specified part of the print job data/page to the printer (column 1, lines 48-60). A user, from the user's computer, using the home page of a printer would inform the printer of a location of each part (URLs of desired print pages) constituting the job data.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's method of operating a printer to include: a step of being informed of a location of each part constituting the job data from the host computer; in the step of demanding, a desired part of the job data can be specified for the host computer based upon the informed location of each part; and in the step of printing, only the desired part of the job data sent from the host computer in response to the job request is received and printed.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's method of operating a printer because of the following reason: (a) it would have allowed users to access the page of a document that the user is interested in printing and thereby, reduces the data to be downloaded to the printer, and speed up the printing time; and (b) since Gase already knows about the method of using URLs to represent individual print pages of a print job to be requested and printed by the printer, it would have been obvious for Gase to use URLs to represent individual print pages of a print job to be requested and printed by the printer, when Gase only interest in printing a page within a multi-page documents- especially the multi-page document contains hundreds of pages.

5. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase (US 6,184,996) in view of Debry (US 6,385,728).

Regarding claim 21: Gase teaches a print server (the computer that generates the URL message other than the computer where the print job corresponds to the URL is resided, column 3, lines 18-21, column 3, lines 5-9; each client processor/computer is a print server, column 3, lines 1-4, that serves the printer's request, column 1, lines 41-45, column 3, lines 25-30) for transmitting job location data (URL, column 3, lines 15-21) to a printer, comprising: a storage (computer application has a print job ready for submission to printer, column 3, lines 5-6, i.e., the print server is having a print job of its own (not the URL to be transmitted) that is already created and being held in the client processor before sending to the printer. The process that is preventing the server from losing the print job of its own before the print job is being sent to the printer is storing. It is inherent that storing a print job uses a storage); a transmitter (the program code of the program module, column 1, lines 22-25, of the computer that controls communicating the URL message, column 3, lines 16-21, to a printer) for sending the job location data to a printer; and a receiver (the program code of the program module, column 1, lines 22-25, of the computer that controls the receiving function of the computer such as receiving a home page, column 3, lines 50-53) for receiving data from a network. (WWW fig., 1)

Note: It is inherently that when a computer using program modules/software for controlling the functions of the computer, different functions of the computer require different program code.

Gase does not teach: the receiver receives the job location data from a host computer, and the storage temporarily stores the received job location data.

Debry, in the same area of sending a print request from a printer to a host computer to request a document to be printed by the printer, (column 11, lines 63-67, column 11, lines 1-5, fig. 5) teaches the host computer (file source, column 5, lines 20-

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25, document source, column 7, lines 16) sends job location data (column 7, lines 20-25, column 10, line 65) showing a location of the job data to the user's computer, (Column 6, lines 60-62), and the user's computer receives the job location data temporarily stores the job location data (the print job location information is located in the will call certificate, column 7, lines 15-25, and the will call certificate is being send with a job request, column 8, lines 65-67. Therefore, the will call certificate/print job location information is temporarily being stored in the user's computer from the time the user's computer received the will call certificate to the time the certificate being sent), before transmitting the job location data to a print server.

Since the computer used by a user would be used as a print server in Debry, column 6, lines 65-67, column 7, lines 1-2, and the client processor (computer) in Gase is a print server, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's receiver and storage of the print server to include: the receiver receives job location data from a host computer, and the storage for temporarily storing the received job location data.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printing system by the teaching of Debry because of the following reasons: (a) the user, column 3, lines 5-9, Gase, in one computer that may wish to have a print job that is presented in another computer submitted to the printer, would not have to walk to the another computer to check the URL of the print job or remembering the URL of the print job if Gase's computer system is being modified to have the host computer sends job location data (URL) showing a location of the job data to the printer server (the computer that sends URL to a printer to request a print job from the host); (b) it would have solved the problem created when a user would like to print a document in a remote location but the user's computer system

is not secure, is having too much network traffic, or may not have storage space for receiving the print job, as taught by Debry at column 3, lines 44-65; and (c) temporarily storing the job location data would prevent the server from losing the job location data.

Regarding claim 22: Gase teaches a method of operating a print server (the computer that generates the URL message other than the computer where the print job resided, column 3, lines 18-21, column 3, lines 5-9; each client processor is a print server, column 3, lines 1-4, that serves the printer's request, column 1, lines 41-45, column 3, lines 25-30) for transmitting job location data (URL, column 3, lines 15-21) to a printer comprising steps of: sending job location data (URL, column 3, line 18) showing a location of job data to a printer. (column 3, lines 15-20)

Gase does not teach receiving job location data from a host computer, and temporarily storing the received job location data.

Debry, in the same area of sending a print request from a printer to a host computer to request a document to be printed by the printer, (column 11, lines 63-67, column 11, lines 1-5, fig. 5) teaches the host computer (file source, column 5, lines 20-25, document source, column 7, lines 16) sends job location data (column 7, lines 20-25, column 10, line 65) showing a location of the job data to the user's computer, (Column 6, lines 60-62), and the user's computer receives the job location data temporarily stores the job location data (the print job location information is located in the will call certificate, column 7, lines 15-25, and the will call certificate is being send with a job request, column 8, lines 65-67. Therefore, the will call certificate/print job location information is temporarily being stored in the user's computer from the time the user's computer received the will call certificate to the time the certificate being sent), before transmitting the job location data to a print server.

Since the computer used by a user would be used as a print server in Debry, column 6, lines 65-67, column 7, lines 1-2, and the client processor (computer) in Gase is a print server, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's receiving step to include: receiving job location data from the host computer, and temporarily storing the received job location data.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printing system by the teaching of Debry because of the following reasons: (a) the user, column 3, lines 5-9, Gase, in one computer that may wish to have a print job that is presented in another computer submitted to the printer, would not have to walk to the another computer to check the URL of the print job or remembering the URL of the print job if Gase's computer system is being modified to have the host computer sends job location data (URL) showing a location of the job data to the printer server (the computer that sends URL to a printer to request a print job from the host); (b) it would have solved the problem created when a user would like to print a document in a remote location but the user's computer system is not secure, is having too much network traffic, or may not have storage space for receiving the print job, as taught by Debry at column 3, lines 44-65; and (c) temporarily storing the job location data would prevent the server from losing the job location data.

Regarding claim 23: Gase teaches record medium readable (note) by a computer on which a program for instructing a computer (the computer that generates the URL message other than the computer where the print job resided, column 3, lines 18-21, column 3, lines 5-9; each client processor is a print server, column 3, lines 1-4, that serves the printer's request, column 1, lines 41-45, column 3, lines 25-30) to execute the following steps is recorded, the steps comprising: a step of sending job location data

(URL, column 3, line 18) showing a location of job data to a printer, (column 3, lines 15-30) and a step of receiving (column 3, lines 50-52) data from a network. (WWW fig., 1)

Note: Gase, column 1, lines 20-25, teaches the computer is running by operating system and program modules/software; it is inherently that a computer controlled by operating system and program modules/software requires a record medium readable by a computer for storing the operating system and program steps.

Gase does not teach the step of receives job location data from a host computer, and the step of temporarily storing the received job location data.

Debry, in the same area of sending a print request from a printer to a host computer to request a document to be printed by the printer, (column 11, lines 63-67, column 11, lines 1-5, fig. 5) teaches the host computer (file source, column 5, lines 20-25, document source, column 7, lines 16) sends job location data (column 7, lines 20-25, column 10, line 65) showing a location of the job data to the user's computer, (Column 6, lines 60-62), and the user's computer receives the job location data temporarily stores the job location data (the print job location information is located in the will call certificate, column 7, lines 15-25, and the will call certificate is being send with a job request, column 8, lines 65-67. Therefore, the will call certificate/print job location information is temporarily being stored in the user's computer from the time the user's computer received the will call certificate to the time the certificate being sent), before transmitting the job location data to a print server.

Since the computer used by a user would be used as a print server in Debry, column 6, lines 65-67, column 7, lines 1-2, and the client processor (computer) in Gase is a print server, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's receiving step to include: a

step of receiving job location data from the host computer and a step of temporarily storing the received job location data.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printing system by the teaching of Debry because of the following reasons: (a) the user, column 3, lines 5-9, Gase, in one computer that may wish to have a print job that is presented in another computer submitted to the printer, would not have to walk to the another computer to check the URL of the print job or remembering the URL of the print job if Gase's computer system is being modified to have the host computer sends job location data (URL) showing a location of the job data to the printer server (the computer that sends URL to a printer to request a print job from the host); (b) it would have solved the problem created when a user would like to print a document in a remote location but the user's computer system is not secure, is having too much network traffic, or may not have storage space for receiving the print job, as taught by Debry at column 3, lines 44-65; and (c) temporarily storing the job location data would prevent the server from losing the job location data.

Response to Arguments

6. Applicant's arguments filed on 4/20/2004 have been fully considered but they are not persuasive.

With respect to applicant's argument that Gase and Zimmerman does not teach the action based on a condition of the print engine and the memory are taken by the host computer, has bee considered.

In reply: Gase does not teach the details within the printer - a print engine, a receive buffer memory, and wherein the job request section sends said job request to

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the host computer according to a condition of the engine and the receive buffer memory.

Zimmerman, in the same area using a printer for printing, shows the detail of a printer having a print engine, (column 5, line 29) a receive buffer memory, (column 5, lines 35-36) and wherein the host computer sends the print job to the printer according to a condition of said print engine (the print engine must be ready to print after 40 % of the print data is being stored) and said receive buffer memory (the memory must have space for the transmitted print job).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer to include: a print engine, a receive buffer memory, and wherein the job request section sends said job request to the host computer according to a condition of the engine and the receive buffer memory.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Gase's printer by the teaching of Zimmerman because of the following reasons: (a) it would have provide a hardware device/print engine to carry out the printing; (b) it would prevent the data from being lost by using a buffer; and (c) it would have prevented the print engine from stopping during printing which will degrade the print quality.

Note: since the sending of print data cannot be happened without the job request section sending said job request to the host computer; the combination of Gase

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and Zimmerman requires the job request section sending said job request to the host computer for sending the print data.

With respect to applicant's argument that user 20 computer, Debry, is not a server has been considered.

In reply: Column 6, lines 65-67, column 7, lines 1-2, Debry, teaches a server is a computer that manage the function of a printer and device queuing. Debry further teaches (column 7, line 1) server computer is a computer that performs both the server function and other functions. User 20 is using a computer (column 6, lines 60-65) for accessing the document source and the printer. Therefore, a person with ordinary skill in the art would know to use a computer as the user's computer and the computer includes a computer that performs both the server functions and other functions. With respect to applicant's argument that user 20 does not send job location data to printer, has been considered.

In reply: Column 7, lines 43-48, Debry, teaches user 20 sends information such as where the document is (job location data) to the printer.

With respect to applicant's argument that pipeline does not teach to specify a desired part of the job data, has been considered.

In reply: The examiner interprets the original document data as the whole print job data (column 1, lines 55) and a print page of the document as part of the print job data.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

7/27/04

King Y. Poon